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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/578,492	02/14/2007	Jan Van Der Ent	P71263US0	9444

136 7590 10/07/2009  
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EXAMINER
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SAINT SURIN, JACQUES M

ART UNIT	PAPER NUMBER
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2856

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10/07/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/578,492	<b>Applicant(s)</b> VAN DER ENT ET AL.	
	<b>Examiner</b> J M. SAINT SURIN	<b>Art Unit</b> 2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 05/05/06, 08/16/06, 02/14/07 and 08/20/0.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-52 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-52 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05/05/06 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                                                              |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                         | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>08/06</u> | 6) <input type="checkbox"/> Other: _____                                                |

## DETAILED ACTION

### *Drawings*

1. The drawings filed on 07/05/06 are accepted by the examiner.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-8, 15, 18-20, 27-28, 47, 49 and 51 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamada et al. (US Patent 6,332,361) or Siebert et al. (US Patent WO 01/71338 A1).

4. Regarding claims 1-2, 4-8 and 12-14 Yamada discloses a method for checking a weld (10) between a first metal pipeline(12) and a second metal pipeline (14), in particular an austenitic weld (10), characterized in that the method comprises at least the following method steps:

a. a first ultrasonic beam (22a) is transmitted to an interface (16) between the weld (37) and the first pipeline (52) situated on a first side of the weld (16) ;

b. a reflection of the first ultrasonic beam on the interface (16) situated on the first side of the weld (10) is received and a first received signal corresponding thereto is generated (col. 3, lines 64-67);

c. a second ultrasonic beam (22b) different from the first ultrasonic beam is transmitted to the interface (16) situated on the first side of the weld (10);

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d. a reflection of the second ultrasonic beam on the interface(16) situated on the first side of the weld is received and a second received signal corresponding thereto is generated (col. 12, lines 28-32 and 48-60).

e. the first received signal and the second received signal are processed in combination for checking the weld (16) [col. 13, lines 47-57).

Regarding claims 2, 4-8 and 12-14, Yamada et al. discloses there is an effect that whether or not a step fault is present at the edge of the bonding interface, in particular on the inner circumferential surface, can be discriminated based on a size of the difference between the reflected echo heights. In addition, the present invention has an effect that a protruding direction of the step fault can be easily discriminated based on a sign of a value indicating the difference between the reflected echo heights. Further, if a relation between the reflected echo height and the step fault measured on a sample under the same condition is obtained in advance, the present invention achieves another effect that a size of the step fault can be estimated with high accuracy based on a size of the difference of the reflected echo heights (col. 5, lines 16-29).

Regarding claims 15, 18-20, 27-28, 47, 49 and 51, Yamada et al. discloses arranging an ultrasonic probe around an outer circumferential surface of a first pipe member of the metallic pipe being bonded together by diffusion bonding, and measuring reciprocating time, by said ultrasonic probe, for an ultrasonic wave incident perpendicularly toward the outer circumferential surface of said pipe member to reflect back its echo therefrom, arranging an ultrasonic probe around an outer circumferential

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surface of a second pipe member of the metallic pipe, and measuring reciprocating time, by the ultrasonic probe, for an ultrasonic wave incident perpendicularly in the same direction as that of the first pipe member to the outer circumferential surface of said second pipe member to reflect back its echo therefrom, and calculating a size of a step fault produced at a bonding portion along the outer circumferential surface based on the reciprocating time of the outer reflected echo measured in said measurements (col. 6, lines 28-46).

Regarding claims 1, 9-10, 11-14 and 21-26, Siebert et al. discloses a method of ultrasonic testing using successive selections of independent elements of a transducer array phased to produce sonic energy focussed on successive zones along a path within a test piece, and an ultrasonic receiver to detect ultrasonic energy reflected or refracted at zones along said path, wherein the sonic energy from the successive selections of elements are phased so as have a progressively varying angle of incidence on the path such as to converge on a transducer in the receiver, and signals from the receiver represent the amplitudes of sonic energy reflected or refracted from successive zones along the path. Preferably the path lies along the height of a girth weld in a pipe or vessel, and the method includes rotating the transmitter and receiver relative to the pipe or vessel to bring successive portions of the weld in line with said path (page 2, lines 7-24). Siebert et al. further discloses referring first to Figure 3, which illustrates the application of phased array transducers to the wall P of a pipe including a girth weld W to be inspected, it will be seen that energy from successive groupings Of elements of the transmitter array 20 is focused in parallel beams onto successive

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locations across the height of a weld interface<sup>34</sup> to be examined. Energy reflected from the weld is picked up by successive groupings of elements of a phased array receiver 22, and processed to provide an output signal. Flaws in the weld will produce variations in the receiver output as the apparatus and the pipe are moved relatively so as to scan the peripheral extent of the weld (page 4, lines 17-28).

***Allowable Subject Matter***

5. Claims 29-46, 50 and 52 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to J M. SAINT SURIN whose telephone number is (571)272-2206. The examiner can normally be reached on Mondays to Fridays between 9:30 A.M and 6:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron L. Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jacques M SAINT SURIN/  
Examiner, Art Unit 2856